Project Name:WAGGA WAGGA SOIL LANDSCAPESProject Code:1000448Site ID:Agency Name:CSIRO Division of Soils (ACT)

Observation ID: 1

Site Information Locality: Desc. By: Chen, XY Locality: Date Desc: 15/07/93 Elevation: 172 metres Map Ref.: Sheet No.: 8327 1:25000 Rainfall: No Data Northing/Logi: 507200 Datum: AGD66 Drainage: Imperfectly drained Geology ExposureType: No Data Conf. Sub. is Parent. Mat.: Probable Geol. Ref.: Cza Substrate Material: Clay Rel/Slope Class: No Data Relief: No Data Morph. Type: Flain Relief: No Data Slope Category: No Data Slope Category: No Data Slope: 1% Aspect: 270 degrees Surface Soil Condition (dry): Hardsetting Erosion: Soil Classification: Australian Soil Classification: Mapping Unit: N/A Asc Confidence: Complete clearing. Pasture, native or improved, but never cultivated Yegetation: Surface Coarse Fragments: Surface Coarse Fragments: Surface Coarse Fragments: Profile Morphology A 0 - 0.1 m Dark redish brown (5YR3/3			,							
Date Desc.: 15/07/93 Elevation: 172 metres Map Ref.: Sheet No.: 8327 1:2500 Rainfall: No Data Morthing/Long:: 6118600 AMG zone: 55 Runoff: Very slow Easting/Lat:: 507200 Datum: AGD66 Drainage: Imperfectly drained Geology ExposureType: No Data Conf. Sub. is Parent. Mat.: Probable Geol. Ref.: Cza Substrate Material: Clay Land Form Rel/Slope Class: No Data Pattern Type: Plain Morph. Type: Flain Relief: No Data Elem. Type: Slope: 1 % Aspect: 270 degrees Surface Soil Condition (dry): Hardsetting Frincipal Profile Form: Dr2.11 ASC confidence: Great Soil Group: N/A Confidence: Complete clearing. Pasture, native or improved, but never cultivated Vegetation: Surface Coarses Fragments: Principal Profile Form: Dr2.11 Profile Morphology A 0 - 0.1 m Dark reddish brown (5YR3/3-Moist); : Loam; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric: Common (1-5 per 100mm2) Very fime (0.075-1mm) macropores, Few (<1 per	Site Information	n								
Exposure Type:No DataConf. Sub. is Parent. Mat.:ProbableGeol. Ref.:CzaSubstrate Material:ClayLand FormRel/Slope Class:No DataPattern Type:PlainMorph. Type:FlatRelief:No DataSlope:1 %Aspect:270 degreesSurface Soil Condition (dry):HardsettingErosion:Soil ClassificationAustralian Soil Classification:Mapping Unit:N/AHaplic Red Chromosol Thick Slightly gravelly SandyPrincipal Profile Form:Dr2.11ASC Confidence:Confidence:Great Soil Group:N/AConfidence:Complete clearing. Pasture, native or improved, but never cultivatedVegetation:Surface Coarse Fragments:Profile MorphologyA0 - 0.1 mA0 - 0.1 mDark reddish brown (5YR3/3-Moist); ; Loam; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy flabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) nots; Gradual, Smooth change to -B10.1 - 0.6 mRed (2.5YR4/6-Moist); ; Clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; Roughped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; Moderately batic; Yerel b + 5.5 (Raupach); Common, fine (1-2mm) roots; Gradual change to -B20.6 - 0.8 mRed (2.5YR4/6-Moist); Mottles, 2-10% , Faint; Light medium clay; Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Firm consistence; Very plastic; Very sticky; Field pH 6 (Raupach); Few, fine (1-2mm) roots;	Date Desc.: Map Ref.: Northing/Long.:	15/07/93 Sheet No. : 8327 1:25000 6118600 AMG zone: 55	Elevation:172 metreRainfall:No DataRunoff:Very slow		1	d				
Ret/Slope Class:No DataPattern Type:PlainMorph, Type:FlatRelief:No DataBlem, Type:PlainSlope Category:No DataSlope:1 %Aspect:270 degreesSurface Soil Condition (dry):HardsettingErosion:Soil ClassificationMapping Unit:N/AAustralian Soil Classification:Mapping Unit:N/AHaplic Red Chromosol Thick Slightly gravelly SandyPrincipal Profile Form:Dr2.11ASC Confidence:Great Soil Group:N/AConfidence level not specifiedSturbance:Complete clearing. Pasture, native or improved, but never cultivatedVegetation:Surface Coarse Fragments:Profile MorphologyA0 - 0.1 mDark reddish brown (5YR3/3-Moist); ; Loam; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Common (1-5 per 100mm2) Very fime (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) moots; Gradual, Smooth change to -B10.1 - 0.6 mRed (2.5YR4/6-Moist); ; Clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; Roughped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; Moderately plastic; Very sticky; Field pH 5.5 (Raupach); Common, fine (1-2mm) roots; Gradual, Smooth change to -B20.6 - 0.8 mRed (2.5YR4/6-Moist); Mottles, 2-10% , Faint; Light medium clay; Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Kong-readity, Field pH 6 (Raupach); Few, fine (1-2mm) roots;	ExposureType:					le				
Erosion: Soil Classification Australian Soil Classification: Mapping Unit: N/A Haplic Red Chromosol Thick Slightly gravelly Sandy Principal Profile Form: Dr2.11 ASC Confidence: Great Soil Group: N/A Confidence level not specified Site Disturbance: Complete clearing. Pasture, native or improved, but never cultivated Vegetation: Surface Coarse Fragments: Profile Morphology A 0 - 0.1 m Dark reddish brown (5YR3/3-Moist); ; Loam; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Very firm consistence; Non-plastic; Moderately sticky; Field pH 6 (Raupach); Common, fine (1-2mm) roots; Gradual, Smooth change to - B1 0.1 - 0.6 m Red (2.5YR4/6-Moist); ; Clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; Moderately plastic; Very sticky; Field pH 5.5 (Raupach); Common, fine (1-2mm) roots; Gradual change to - B2 0.6 - 0.8 m Red (2.5YR4/6-Moist); Mottles, 2-10% , Faint; Light medium clay; Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Firm consistence; Very plastic; Very sticky; Field pH 6 (Raupach); Few, fine (1-2mm) roots;	Rel/Slope Class: Morph. Type: Elem. Type: Slope:	Flat Plain 1 %	Relief: Slope Category:	No Data No Data	ees					
Soil ClassificationAustralian Soil Classification:Mapping Unit:N/AHaplic Red Chromosol Thick Slightly gravelly SandyPrincipal Profile Form:Dr2.11ASC Confidence:Great Soil Group:N/AConfidence level not specifiedSite Disturbance:Complete clearing. Pasture, native or improved, but never cultivatedVegetation:Surface Coarse Fragments:Profile MorphologyA0 - 0.1 mDark reddish brown (5YR3/3-Moist); ; Loam; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Very firm consistence; Non-plastic; Moderately sticky; Field pH 6 (Raupach); Common, fine (1-2mm) roots; Gradual, Smooth change to -		Hardsetting								
Haplic Red Chromosol Thick Slightly gravelly Sandy Principal Profile Form: Dr2.11 ASC Confidence: Great Soil Group: N/A Confidence level not specified Site Disturbance: Complete clearing. Pasture, native or improved, but never cultivated Vegetation: Surface Coarse Fragments: Profile Morphology A 0 - 0.1 m Dark reddish brown (5YR3/3-Moist); ; Loam; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Very firm consistence; Non-plastic; Moderately sticky; Field pH 6 (Raupach); Common, fine (1-2mm) roots; Gradual, Smooth change to -		ion								
Vegetation: Surface Coarse Fragments:Profile MorphologyA0 - 0.1 mDark reddish brown (5YR3/3-Moist); ; Loam; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Very firm consistence; Non-plastic; Moderately sticky; Field pH 6 (Raupach); Common, fine (1-2mm) roots; Gradual, Smooth change to -B10.1 - 0.6 mRed (2.5YR4/6-Moist); ; Clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; Rough- ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; Moderately plastic; Very sticky; Field pH 5.5 (Raupach); Common, fine (1-2mm) roots; Gradual change to -B20.6 - 0.8 mRed (2.5YR4/6-Moist); Mottles, 2-10%, Faint; Light medium clay; Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Firm consistence; Very plastic; Very sticky; Field pH 6 (Raupach); Few, fine (1-2mm) roots;	Haplic Red Chrom ASC Confidence Confidence level	osol Thick Slightly gravelly Sandy : not specified	Principal Profile Form: Great Soil Group:			Dr2.11				
Surface Coarse Fragments:Profile MorphologyA0 - 0.1 mDark reddish brown (5YR3/3-Moist); ; Loam; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Very firm consistence; Non-plastic; Moderately sticky; Field pH 6 (Raupach); Common, fine (1-2mm) roots; Gradual, Smooth change to -B10.1 - 0.6 mRed (2.5YR4/6-Moist); ; Clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; Rough- ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; Moderately plastic; Very sticky; Field pH 5.5 (Raupach); Common, fine (1-2mm) roots; Gradual change to -B20.6 - 0.8 mRed (2.5YR4/6-Moist); Mottles, 2-10%, Faint; Light medium clay; Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Firm consistence; Very plastic; Very sticky; Field pH 6 (Raupach); Few, fine (1-2mm) roots;			live of improved, but		aleu					
Profile Morphology ADark reddish brown (5YR3/3-Moist); ; Loam; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Very firm consistence; Non-plastic; Moderately sticky; Field pH 6 (Raupach); Common, fine (1-2mm) roots; Gradual, Smooth change to -B10.1 - 0.6 mRed (2.5YR4/6-Moist); ; Clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; Rough- ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; Moderately plastic; Very sticky; Field pH 5.5 (Raupach); Common, fine (1-2mm) roots; Gradual change to -B20.6 - 0.8 mRed (2.5YR4/6-Moist); Mottles, 2-10%, Faint; Light medium clay; Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Firm consistence; Very plastic; Very sticky; Field pH 6 (Raupach); Few, fine (1-2mm) roots;		Fragments:								
A0 - 0.1 mDark reddish brown (5YR3/3-Moist); ; Loam; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Very firm consistence; Non-plastic; Moderately sticky; Field pH 6 (Raupach); Common, fine (1-2mm) roots; Gradual, Smooth change to -B10.1 - 0.6 mRed (2.5YR4/6-Moist); ; Clay Ioam; Moderate grade of structure, 5-10 mm, Polyhedral; Rough- ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; Moderately plastic; Very sticky; Field pH 5.5 (Raupach); Common, fine (1-2mm) roots; Gradual change to -B20.6 - 0.8 mRed (2.5YR4/6-Moist); Mottles, 2-10%, Faint; Light medium clay; Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Firm consistence; Very plastic; Very sticky; Field pH 6 (Raupach); Few, fine (1-2mm) roots;										
 ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; Moderately plastic; Very sticky; Field pH 5.5 (Raupach); Common, fine (1-2mm) roots; Gradual change to - B2 0.6 - 0.8 m Red (2.5YR4/6-Moist); Mottles, 2-10%, Faint; Light medium clay; Strong grade of structure, 2-5 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Firm consistence; Very plastic; Very sticky; Field pH 6 (Raupach); Few, fine (1-2mm) roots; 	A 0 - 0.1 m Dark reddish brown (5YR3/3-Moist); ; Loam; Weak grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Few (<1 per 100mm2) Fine (1-2mm) macropores, Dry; Very firm consistence; Non-plastic; Moderately									
mm, Polyhedral; Smooth-ped fabric; Moderately moist; Firm consistence; Very plastic; Very sticky; Field pH 6 (Raupach); Few, fine (1-2mm) roots;	B1 0.1 - 0.6	ped fabric; Few (<1 per 100 Moderately plastic; Very st	ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Very firm consistence; Moderately plastic; Very sticky; Field pH 5.5 (Raupach); Common, fine (1-2mm) roots; Gradual							
Morphological Notes	B2 0.6 - 0.8	mm, Polyhedral; Smooth-pe	mm, Polyhedral; Smooth-ped fabric; Moderately moist; Firm consistence; Very plastic; Very							
	Morphological	Notes								

Morphological Notes

Observation Notes

Pit to 30cm, auger to 80cm.

Site Notes

100M S HIGHWAY, W ROAD

Project Name:WAGGA WAGGA SOIL LANDSCAPESProject Code:1000448Site ID:WW167Observation ID:1Agency Name:CSIRO Division of Soils (ACT)Site ID:WW167Site ID:1

Laboratory Test Results:

Depth	рН	1:5 EC		angeable Ig	Cations K	E Na	Exchangeable Acidity	CEC		ECEC	ES	SP
m		dS/m	Ca IV	ig	ĸ	Cmol (+)					%	
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Pa GV	rticle CS	Size FS	Analysis Silt C	lay
m	%	%	mg/kg	%	%	%	Mg/m3			%		-
Depth	COLE		Gravimetric/Volumetric Water Contents					Ks	at	K unsat		
m		Sat.	0.05 Bar	0.1 Bar g/g	0.5 Bar g - m3/m3	1 Bar 3	5 Bar 15	Bar	mm	ı/h	mm/h	

Project Name:WAGGA WAGGA SOIL LANDSCAPESProject Code:1000448Site ID:Agency Name:CSIRO Division of Soils (ACT)

Observation ID: 1

Laboratory Analyses Completed for this profile